

LISTING OF CLAIMS

The listing of claims provided below replaces all prior versions, and listings, of claims in the application.

5 1. (Previously Presented) A method for determining a physical location of a source, the method comprising:
 transmitting an identifiable acoustic signal by a transmitter device defined on a source, the source being placed within an acoustic monitoring area;
 receiving the acoustic signal from the transmitter device defined on the source by
10 at least two sensors;
 processing a received acoustic signal, the processing using data from the at least two sensors;
 identifying an approximate localized point in the acoustic monitoring area, the approximate localized point defining a physical location of the source; and
15 reporting the physical location of the source over a network.

2. (Previously Presented) A method for determining a physical location of a source, the method comprising:
 receiving an acoustic signal from a source placed within an acoustic monitoring area;
20 processing a received acoustic signal, the processing using data from at least two sensors;
 identifying an approximate localized point in the acoustic monitoring area, the approximate localized point defining a physical location of the source; and

reporting the physical location of the source over a network, wherein the source is a computer system or a rack including the computer system.

3. (Previously Presented) A method for determining a physical
5 location of a source, the method comprising:

receiving an acoustic signal from a source placed within an acoustic monitoring area;

processing a received acoustic signal, the processing using data from at least two sensors;

10 identifying an approximate localized point in the acoustic monitoring area, the approximate localized point defining a physical location of the source; and

reporting the physical location of the source over a network, wherein the acoustic monitoring area is a data center.

15 4. (Original) A method as recited in claim 1, wherein each sensor of the at least two sensors is a microphone.

5. (Previously Presented) A method as recited in claim 1, wherein the operation of processing the received acoustic signal is an arrival-time correlation
20 process, distributed sensor/time of flight process, or an echolocation process.

6. (Original) A method as recited in claim 1, wherein the approximate locale of the source is determined by an acoustic signal processor.

7. (Original) A method as recited in claim 1, wherein the physical location of the source is reported out-of-band.

8. (Original) A method as recited in claim 7, wherein the physical 5 location of the source is reported using wireless technology.

9. (Previously Presented) A localizing system for determining a physical location of a source, the localizing system comprising:

an acoustic environment configured to include the source;
10 a transmitter device for transmitting streams of identifiable acoustic signals, the transmitter device being defined on the source;
at least a pair of compact sensors for detecting and capturing the streams of acoustic signals transmitted by the transmitter device; and
a signal processor for receiving and processing captured streams of acoustic 15 signals so as to ascertain the physical location of the source.

10. (Previously Presented) A localizing system as recited in claim 9, wherein the physical location of a rack is ascertained using an arrival-time correlation process.

20

11. (Original) A localizing system as recited in claim 9, the localizing system further comprising:

a computer console for processing and displaying a location of the source in the acoustic environment.

25

12. (Original) A localizing system as recited in claim 9, wherein the pair of compact sensors is a pair of microphones.

13. (Original) A localizing system as recited in claim 9, wherein the
5 acoustic environment is a data center.

14. (Original) A localizing system as recited in claim 13, wherein the data center includes a plurality of structures each including a system site, each system site including a plurality of racks, each rack including a plurality of computer systems.

10

15. (Original) A localizing system as recited in claim 14, wherein each system site includes a signal processor.

16. (Original) A localizing system as recited in claim 15, wherein each
15 signal processor is defined on a central location in each system site.

17. (Original) A method for ascertaining a physical location of a failed computer system in a data center, the method comprising:

20 receiving a failure report from the failed computer system;
transmitting streams of acoustic signals;
capturing transmitted streams of acoustic signals; and
processing the transmitted streams of acoustic signals so as to determine the physical location of the failed computer system.

18. (Original) A method as recited in claim 17, the method further comprising:

reporting the physical location of the failed computer system.

5 19. (Original) A method as recited in claim 17, wherein the operation of receiving the failure report from the failed computer system includes, generating the failure report by the failed computer system; and communicating the failure report of the failed computer system.

10 20. (Original) A method as recited in claim 19, wherein the failure report is communicated out-of-band to a signaling circuitry.

21. (Original) A method as recited in claim 17, wherein the operation of transmitting streams of acoustic signals includes, defining an acoustic signal emitter on an outer surface of a rack including the failed computer system; and generating streams of acoustic signals having identifiable characteristics.

22. (Original) A method as recited in claim 17, wherein the operation of capturing the transmitted streams of acoustic signals includes, receiving streams of acoustic signals; identifying streams of acoustic signals having identifiable characteristics; and capturing transmitted streams of acoustic signals having identifiable characteristics.

23. (Original) A method as recited in claim 17, wherein the operation of processing transmitted streams of acoustic signals so as to determine the physical location of the failed computer system includes,

5 sending transmitted streams of acoustic signals to a signal processor;
converting the transmitted streams of acoustic signals; and
executing converted streams of acoustic signals by a computer software so as to determine the physical location of the failed computer system.

10 24. (Original) A method as recited in claim 23, wherein the physical location of the failed computer system is determined using an arrival-time correlation process.

15 25. (Original) A method for generating a sonic map of a data center, the method comprising:

for each system site in the data center,
defining an acoustic signal processor on a central location of the system site; and

for each rack in the system site,
placing an acoustic signal emitter on a rack; and

20 for each computer system in the rack,
generating an identifiable signal;
communicating the identifiable signal to the rack;
transmitting associated streams of acoustic signals;
capturing transmitted streams of acoustic signals by the
25 acoustic signal processor;

processing transmitted streams of acoustic signals; and
displaying a locality of the computer system generating the
identifiable signals.